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EXAMINER
VU, NGOC YEN T

ART UNIT	PAPER NUMBER
2612	18

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/025,862	Applicant(s) Masahide TANAKA et al.
	Examiner Ngoc-Yen Vu	Art Unit 2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Mar 10, 2003* .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *20* is/are allowed.

6) ☒ Claim(s) *1-14, 16-19, 21, and 22* is/are rejected.

7) ☒ Claim(s) *15* is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Response to Amendment

1. The amendments, filed on 03/10/2003, have been entered and made of record. Claims 1-22 are pending and examined.

Response to Arguments

2. Applicant's arguments with respect to claims 1-14, 16-19 and 21-22 have been considered but are moot in view of the new ground(s) of rejection.

With respect to claims 15 and 20, the Applicant's arguments are found persuasive. Therefore, the independent claim 20 is allowed and the dependent claim 15 is objected to as being dependent upon a rejected base claim.

With respect to claim 21, the Examiner's responses to the Applicant's arguments are addressed in the rejected claim.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-7, 10-14, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Harris et al. (US #6,009,336) in view of Hillenmayer (US #5,719,936), and further in view of Jacobsen et al. (US #6,073,034).

Regarding claim **1**, Harris '336 teaches a digital still camera capable of telecommunication comprising:

a converting device (Fig. 1, CCD camera 188) which converts an optical image into a digital electronic signal indicative of a still image (col. 12 lines 5-30);

a receiver (Fig. 1, circuitry 114, antenna 124 , RF transceiver 126 and controller 118) which receives an electromagnetic signal generated in accordance with a wireless telephone system (col. 3 lines 41-58; col. 6 line 25- col. 7 line 14; col. 9 lines 36-65; col. 10 line 47 - col. 11 line 7);

a modifying unit (Fig. 1, DSP channel modem 128 and controller 118) which modifies said electromagnetic signal into a digital electronic signal (col. 3 line 59 - col. 4 line 3; col. 9 lines 36-65; col. 10 line 47 - col. 11 line 7);

a device (Fig. 1, display 184) which alternatively display a still image on the basis of the digital electronic signal from the converting device (col. 5 lines 52-54; col. 11 line 39 - col. 12 line 44) or from the modifying unit (col. 9 lines 44-65).

Claim 1 differs from Harris in that the claim further requires the modifying unit modifies the electromagnetic signal into a digital electronic signal indicative of a still image. It is noted that Harris teaches that the channel modem DSP 128 demodulates and decodes electrical signals received by the receiver circuitry 114 into compressed image data, received speech data or receive control data (col. 3 line 40 - col. 4 line 3). Although Harris does not specifically teach that the DSP 128 modifies the received electrical signals into a digital electronic signal indicative

of a still image, Harris does teach that an image of a second user is displayed on the display 184 in the video conferencing mode. However, it is well known in the art for a wireless communication device to receive still images in a video conference mode, as taught in Hillenmayer '936 (see col. 5 lines 16-24). It is further well known in the art for a wireless communication device to modify compressed video information to produce a still image or a video image, as taught in Jacobsen '034 (col. 3 lines 41-11). In light of the teaching in Hillenmayer and Jacobsen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the hand-held radiotelephone taught in Harris by allowing the electromagnetic signal received by the DSP 128 to be modified indicative of a still image so as to allow either still and video images to be displayed on the handheld radiotelephone taught in Harris.

As to claim **2**, Harris '336 teaches a memory (Fig. 1, image memory 153) for storing the digital electronic signal from the converting device (col. 4 lines 23-60; col. 12 lines 5-24) or from the modifying unit (col. 4 lines 30-33, lines 51-60), the displaying device being responsive to the memory (col. 9 lines 44-60; col. 12 lines 5-24).

As to claim **3**, the claim differs from Harris in that the claim further requires the displaying device includes a reflection type color liquid crystal display device without back light illumination. However, for the purpose of conserving power it is well known in the art that a color liquid crystal display device having no back light illumination is preferable in a portable compact imaging and displaying apparatus. Therefore, it would have been obvious to one of

ordinary skill in the art to provide the portable handheld phone taught in Harris with a color LCD having no backlight illumination in order to conserve the power for the handheld phone.

As to claim **4**, Harris '336 teaches a device for automatically activating the receiver responsive to an electromagnetic signal generated in accordance with a wireless telephone system identifying the digital still camera (col. 3 line 41 - col. 4 line 3; col. 9 lines 6-65).

As to claim **5**, Harris '336 teaches a speaker (Fig. 1, speaker 149) for generating an audio signal in response to the electromagnetic signal generated in accordance with a wireless telephone system received by the receiver (col. 4 lines 4-22; col. 7 lines 3-15).

As to claim **6**, Harris '336 teaches a device (DSP modem 128 and microprocessor 137) responsive to the receiver for controlling the displaying device to indicate whether the received electromagnetic signal contains a still image signal or an audio signal (col. 3 line 41 - col. 4 line 50; col. 9 lines 17-65).

As to claim **7**, Harris '336 teaches a device (Fig. 1, latch 112 and microprocessor 137) for switching a first mode of generating the audio signal via the speaker in response to the electromagnetic signal received by the receiver to a second mode of displaying the image on the displaying device in response to the electromagnetic signal received by the receiver (col. 9 lines 6-65).

As to claim **10**, Harris '336 teaches a device for manually (Fig. 1, latch 112) controlling the switching device (col. 9 lines 6-65).

Regarding claim **11**, Harris '336 teaches a digital still camera capable of telecommunication comprising:

a converting device (Fig. 1, CCD camera 188) which converts an optical image into a digital electromagnetic signal indicative of a still image (col. 12 lines 5-30);

a receiver (Fig. 1, antenna 124, RF transceiver 126 and controller 118) which receives an electromagnetic signal generated in accordance with a wireless telephone system (col. 3 lines 41-58; col. 6 line 25- col. 7 line 14; col. 9 lines 36-65; col. 10 line 47 - col. 11 line 7);

a modifying unit (Fig. 1, DSP channel modem 128 and controller 118) which modifies said electromagnetic signal into a digital electronic signal (col. 3 line 59 - col. 4 line 3; col. 9 lines 36-65; col. 10 line 47 - col. 11 line 7);

a device (Fig. 1, display 184) which alternatively display a still image on the basis of the digital electronic signal from the converting device (col. 5 lines 52-54; col. 11 line 39 - col. 12 line 44) or from the modifying unit (col. 9 lines 44-65);

a speaker (Fig. 1, speaker 149) for generating an audio signal in response to the electromagnetic signal generated in accordance with a wireless telephone system received by the receiver (col. 4 lines 4-22; col. 7 lines 3-15); and

a device (Fig. 1, DSP speech processing 130 and controller 118) for extracting an audio signal component from an electromagnetic signal containing both a still image signal and an audio signal to control the speaker (col. 3 line 41 - col. 4 line 22; col. 6 lines 25-49; col. 7 lines 3-15; col. 9 lines 35-65), and a device (DSP image compression/decompression 152 and

controller 118) for extracting a still image signal component from the same electromagnetic signal to control the displaying device (col. 3 line 41 -col. 4 line 60; col. 6 lines 25-49; col. 9 lines 35-65), whereby the displaying device is capable of displaying the still image while the audio signal is being generated from the speaker (col. 9 lines 35-65).

Claim 11 differs from Harris in that the claim further requires the modifying unit modifies the electromagnetic signal into a digital electronic signal indicative of a still image. It is noted that Harris teaches that the channel modem DSP 128 demodulates and decodes electrical signals received by the receiver circuitry 114 into compressed image data, received speech data or receive control data (col. 3 line 40 - col. 4 line 3). Although Harris does not specifically teach that the DSP 128 modifies the received electrical signals into a digital electronic signal indicative of a still image, Harris does teach that an image of a second user is displayed on the display 184 in the video conferencing mode. However, it is well known in the art for a wireless communication device to receive still images in a video conference mode, as taught in Hillenmayer '936 (see col. 5 lines 16-24). It is further well known in the art for a wireless communication device to modify compressed video information to produce a still image or a video image, as taught in Jacobsen '034 (col. 3 lines 41-11). In light of the teaching in Hillenmayer and Jacobsen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the hand-held radiotelephone taught in Harris by allowing the electromagnetic signal received by the DSP 128 to be modified indicative of a still image so

as to allow either still and video images to be displayed on the handheld radiotelephone taught in Harris.

As to claim **12**, Harris '336 further teaches a microphone (Fig. 1, microphone 151) for converting sound into an electronic signal (col. 3 line 41 - col. 4 line 22), a device (DSP 130, DSP 152, DSP 128 and controller 118) for combining the digital electronic signal indicative of a still image with the electronic audio signal to form a combination signal (col. 3 line 41 -col. 4 line 60; col. 6 lines 25-49; col. 9 lines 35-65; col. 11 line 39 - col. 12 line 30), and a device (RF transceiver 126 and antenna 138) for transmitting the combination signal as an electromagnetic signal generated in accordance with a wireless telephone system (col. 3 line 40 - col. 4 line 60), whereby the still image is capable of being transmitted while the audio signal is transmitted by the transmitting device (col. 9 lines 35-65).

As to claim **13**, Harris '336 further teaches a device (Fig. 1, memory 153) responsive to the converting device for storing the digital electromagnetic signal indicative of a still image (col. 4 lines 23-60; col. 12 lines 5-24), wherein the combining device (DSP 130, DSP 152, DSP 128 and controller 118) is responsive to the memory to thereby combining the digital electronic signal indicative of a still image converted prior to the combining operation (col. 3 line 41 -col. 4 line 60; col. 6 lines 25-49; col. 9 lines 35-65; col. 11 line 39 - col. 12 line 30).

As to claim **14**, Harris '336 teaches that the converting device is capable of converting an optical image into a digital electronic signal indicative of a still image while the audio signal is

transmitted by the transmitting device (col. 3 line 41 -col. 4 line 60; col. 6 lines 25-49; col. 9 lines 35-65; col. 11 line 39 - col. 12 line 30).

As to claim **18**, Harris '336 shows in figures 12-13 that the optical image converting device (camera 188) is directed toward an object located at a position where the display device is not observable.

As to claim **19**, Harris '336 shows in figure 2 that the converting device (camera 188) is capable of being directed toward an object at a position where the display device is observable.

5. Claims **8-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris '336 in view of Hillenmayer '936 and Jacobsen '034, and further in view of Sugiyama et al. (US #5,510,829).

As to claims **8-9**, the claim differs from Harris, Hillenmayer and Jacobsen in that the claim further requires a device for inhibiting the speaker from generating the audio signal in the second mode, and a device for distinguishing an electromagnetic signal containing a still image signal from an electromagnetic signal containing an audio signal thereby automatically controlling the switching device. However, it is well known in the art to provide a communication apparatus which informs a user of receiving call from a video phone apparatus or a telephone with only an image in order to prevent a reception sound from disturbing a conference in progress, as taught in Sugiyama '829 (see col. 2 lines 31-40; col. 4 line 25 - col. 6 line 52). In light of the teaching from Sugiyama, it would have been obvious to one of ordinary

skill in the art to allow the handheld video phone taught in Harris to receive only image data so as not to allow any reception sound to disturb any communication which is in progress.

6. Claims **16-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris '336 in view of Hillenmayer '936 and Jacobsen '034, and further in view of Umezawa et al. (US #5,491,507).

As to claim **16**, Harris teaches a microphone (Fig. 1, microphone 151) for converting sound into an electronic audio signal (col. 3 line 41 - col. 4 line 22), wherein the speaker and the microphone have a first mode function in which they are used with the ear and the mouth of a user respectively close thereto (see Fig. 3). Claim 16 differs from Harris in that the claim further requires a second mode function in which they are used with the ear and the mouth of a user respectively remote therefrom. However, for the purpose of having a privacy conversation using a video-telephone equipment it is well known in the art to use the microphone and the speaker remotely as shown in Umezawa '507 (col. 6 line 15 - col. 7 line 39; col. 9 lines 17-29; col. 10 lines 32-54). In light of the teaching in Umezawa, it would have been obvious to one of ordinary skill in the art to modify the video-telephone equipment taught in Harris by providing a second mode function in which the microphone and the speaker are used remotely therefrom so as to allow the user to have a privacy conversation to a third party.

As to claim **17**, Harris, as modified by Umezawa, teaches a manual switch for activating the display device wherein the speaker and the microphone are automatically changed into the

second mode when the display device is activated by the manual switch (See Umezawa, Figs. 17-20; col. 16 line 47 - col. 18 line 36).

7. Claims 21-22 is rejected under 35 U.S.C. 102(e) as being anticipated by Harris et al. (US #6,009,336) in view of Hillenmayer (US #5,719,936).

Regarding claim **21**, Harris '336 teaches a digital still camera capable of telecommunication comprising a device (Fig. 1, CCD camera 188) which converts an optical image into a digital electronic signal indicative of a still image (col. 12 lines 5-30); a microphone (Fig. 1, microphone 151) for converting sound into an electronic audio signal (col. 3 line 41 - col. 4 line 22); a device (latch 112 and controller 118) which selects one of the digital electronic signal indicative of a still image and the electronic audio signal, and a device which prevents the selecting device from selecting the digital electronic signal indicative of a still image unless the selection is requested by a manual operation (Harris teaches that the communication device 104 switch between different modes based on attachment or detachment of the relative position of the housings 108/110 according to the signals generated by the latch 112. Harris also teaches when the housings 108/110 are attached in a first orientation and a second orientation, the communication device 104 operates in a telephone mode and a camera mode, respectively. See col. 5 line 38 - col. 7 line 15; col. 9 line 17 - col. 10 line 5; col. 10 line 33 - col. 11 line 7; col. 11 line 39 - col. 12 line 46); a transmitter (Fig. 1, DSP 152, DSP 128 and controller 118) which transmits the signal selected by the selecting device as an electromagnetic signal generated in

accordance with a wireless telephone system containing the electronic audio signal to the designated remote device (col. 3 line 41 - col. 4 line 60; col. 9 lines 17-65).

Claim 21 differs from Harris in that the claim further requires the transmitter which transmits the signal selected by the selecting device as an electromagnetic signal generated in accordance with a wireless telephone system containing the still image. Although Harris does not specifically teach that the digital electronic signal indicative of a still image is transmitted in a video conferencing mode, Harris teaches that the camera CCD can generate a digital electronic signal indicative of both still and motion images (col. 12 line 5-30). However, it is well known in the art for a wireless communication device to receive and transmit still images in a video conference mode, as taught in Hillenmayer '936 (see col. 5 lines 16-24). In light of the teaching in Hillenmayer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the hand-held radiotelephone taught in Harris by allowing the digital electronic signal indicative of a still image generated by the CCD camera 188 to be transmitted in the video conference mode.

Regarding claim **22**, Harris '336 teaches a digital still camera capable of telecommunication comprising:

a device (Fig. 1, CCD camera 188) which converts an optical image into a digital electromagnetic signal indicative of a still image (col. 12 lines 5-30);

a memory (Fig. 1, memory 139) which stores at least one specific telephone number (col. 9 lines 26-43; col. 10 line 47 - col. 11 line 7);

a first transmitter (Fig. 1, microprocessor 137, circuitry 114, RF transceiver 126, and antenna 124) which transmits an electromagnetic signal generated in accordance with a wireless telephone system to designate a remote device with a telephone number (col. 9 lines 17-35; col. 10 line 47 - col. 11 line 7);

a second transmitter (Fig. 1, microprocessor 137, circuitry 114, RF transceiver 126, and antenna 124) which transmits the digital electronic signal an electromagnetic signal generated in accordance with a wireless telephone system (col. 3 line 41 - col. 4 line 60; col. 9 lines 17-65); and

a device (Fig. 1, microprocessor 137) which allows the transmission of the electromagnetic signal when the telephone number designating the remote device coincides with the specific telephone number in the memory (col. 3 line 41 -col. 4 line 60; col. 6 lines 25-49; col. 9 lines 35-65; col. 11 line 39 - col. 12 line 30).

Claim 22 differs from Harris in that the claim further requires the second transmitter to transmit the digital electronic signal indicative of a still image. Although Harris does not specifically teach that the digital electronic signal indicative of a still image is transmitted in a video conferencing mode, Harris teaches that the camera CCD can generate a digital electronic signal indicative of both still and motion images (col. 12 line 5-30). However, it is well known in the art for a wireless communication device to receive and transmit still images in a video conference mode, as taught in Hillenmayer '936 (see col. 5 lines 16-24). In light of the teaching in Hillenmayer, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the hand-held radiotelephone taught in Harris by allowing the digital electronic signal indicative of a still image generated by the CCD camera 188 to be transmitted in the video conference mode.

Allowable Subject Matter

8. Claim 20 is allowed.

9. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. **Any response to this office action should be mailed to:**

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or faxed to:

(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ngoc-Yen Vu** whose telephone number is (703) 305-4946. The examiner can normally be reached on Mon - Fri from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reached on (703) 305-4929.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

NYV
05/16/2003

NGOC-YEN VU
PRIMARY EXAMINER